REMARKS

Claims 1-25 are pending. Claims 1-8, 11, 14, 17, 20 and 23 have been rejected; Claims 9, 10, 12, 13, 15, 16, 18, 19, 21, 22, 24, and 25 have been deemed to contain allowable subject matter but objected to as being dependent on a rejected claim. Applicant has amended claim 1 and respectfully submits that claims 1-25, as amended, are all allowable.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejects claim 1 under 35 U.S.C 103(a) as being unpatentable over Hendel (U.S. Patent No. 5,920,566) in view of McCollom (U.S. Patent Pub. No. 2003/0120769). Applicant has amended claim 1 and respectfully submits that claim 1 is allowable as amended.

Claim 1 had been amended to add "independently of a multicast routing forwarding table" to emphasize the difference of the claimed invention from the prior art. Support for the amendment can be found at, for example, page 4, lines 11-12 and lines 26-27 of the originally filed specification and original claim 7.

As mentioned in page 1, lines 20-21 and 23-24, a multicast routing forwarding table is formed by the multicast routing protocol (which is known in the art). Therefore, forwarding a multicast message according to the multicast routing forwarding table (i.e. by searching the multicast routing forwarding table) usually needs to run the Internet Group Management Protocol (IGMP) on both the router and the host.

In contrast, as mentioned in page 4, lines 11-12, implementing the present invention does not need to configure the IGMP on the host. In addition, according to the recitations in lines 26-27 of the originally filed specification and original claim 7, when there is a multicast message forwarding rule established at the interface of the network device, information carried by the multicast message is compared with corresponding information in the multicast message forwarding rule to forward the multicast message; and when no multicast message forwarding rule is established at the interface of the network device, the multicast message is forwarded according to a multicast routing forwarding table.

It can therefore be concluded explicitly that the multicast message forwarding rule designated by a user according to the solution as claimed in amended claim 1 is quite different from and thus independent of the multicast routing forwarding table formed by the known multicast routing protocol.

Therefore, it is respectfully submitted that the above amendment is fully supported by the

original disclosure and does not introduce any new matter in this regard.

Regarding the reference relied upon for the claim rejection, Hendel and McCollom, either taken alone or in combination, do not teach a multicast message forwarding rule designated by a user independently of a multicast routing forwarding table.

Specifically, Hendel discloses explicitly that packets are relayed by a multi-layer distributed network element according to **known routing protocols** (see the abstract) and the method for relaying packet comprises determining whether the packet should be forwarded in accordance with a **routing protocol** (see claim 1). Especially in col. 11 lines 20-23 and lines 40-42, Hendel discloses that the routing protocols used to derive the type 2 entries include protocols such as MOSPF and DVMRP which are well known in the art, and the matching type 2 entry for the multicast case may be created as a result of executing a multicast registration protocol such as the **IGMP**. It can thus be concluded explicitly that forwarding a multicast message needs to rely upon a multicast routing forwarding table formed by a known multicast routing protocol according the solution disclosed by Hendel.

In sharp contrast, forwarding a multicast message according to the multicast message forwarding rule designated by a user independently of a multicast routing forwarding table does not need to rely upon the multicast routing forwarding table according to the solution as claimed in amended claim 1.

In fact, as already mentioned in the originally filed specification of the pending application (for example page 4, lines 14-15, and lines 23-25), the configuration that includes designation of the multicast message forwarding rule by the user independently of a multicast routing forwarding table can **replace** functions of the IGMP and the multicast routing protocol, and the method for forwarding multicast message using such configuration can be both an independent mode of forwarding multicast message and an **extension** to the conventional mode of forwarding multicast message, i.e. relying upon a multicast routing forwarding table. Accordingly, configuration of the multicast network may be made simpler, bandwidth resources that are otherwise occupied by the multicast messages transmitted over the multicast network may be saved and forwarding efficiency of a router may be increased.

Now turn to McCollom's disclosure which relates to determining autonomous system transit and terminating volumes.

First of all, McCollom does not teach forwarding a multicast message. Therefore, one

skilled in the art generally will not rely upon McCollom to reach a solution relating to multicast message forwarding.

In addition, although McCollom discloses in page 4, paragraph [0035] that route selection is often based on policies that an administrator configures for a router, the route is actually selected for a given prefix in a Border Gateway Protocol (BGP) table (or other forwarding tables) that is generated via the BGP and other routing protocols (referring further to paragraph [0004]) . That is to say, routing data traffic according to the solution disclosed by McCollom still needs to rely upon forwarding tables that are formed by **known routing protocols**, which is quite different from the solution as claimed in amended claim 1 for the reasons stated above.

Therefore, one skilled in the art can not reach the solution as claimed in amended claim 1 even if Hendel and McCollom are taken in combination. Consequently, amended claim 1 is non-obvious and thus patentable over Hendel in view of McCollom.

Dependent claims 2-25 are also patentable relying at least upon their dependencies from amended claim 1.

For at least these reasons, Applicant therefore respectfully requests the withdrawal of the claim rejections 35 U.S.C 103(a) based on the cited references.

Claims Objections

Claims 9, 10, 12, 13, 15, 16, 18, 19, 21, 22, 24, and 25 are objected to as being dependent from a rejected base claim. Applicant respectfully submits that because claim 1 as amended is now allowable, the objected-to claims are also now allowable. Applicant therefore respectfully requests the withdrawal of the objections to claims 9, 10, 12, 13, 15, 16, 18, 19, 21, 22, 24, and 25.

SUMMARY

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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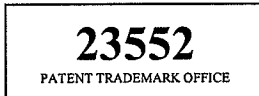
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